

## Polyflam PP properties

- Choice of Homo-/Copolymers in different colours
- High CTI of 600 V
- Flammability ratings – Glow Wire Ignition Temperature
- UL approvals – Low smoke density and toxicity
- Environmental aspects: halogen-free available, compliant with WEEE and ROHS regulations

## Market segments

- **Building & construction**  
Special requirements: complies with EN13501, NF P92-501  
Weather- and UV resistant, free of antimony trioxide for brilliant colors
- **Electrical & electronic**  
e.g. wire and cable ⇒ flexible and bendable  
e.g. cable and ducts, power rails ⇒ impact strength and toughness
- **Household applications**  
Special requirements: exceeding IEC 60335 for unattended household appliances with Glow Wire Ignition Temperature of 0 seconds flame at 775 °C, CTI 600 V, UL94 V-0 at 0,8 mm, 5VB at 2 mm
- **Mobility**  
Special requirements: low warpage, dimensional stable, cost effective, orange color for high voltage applications available

## Nomenclature

### 1st digit =

#### Flame retardant system and FR performance

- 2 halogen-free / V2
- 3 halogenated / V0
- 4 halogen-free / V0
- 5 halogenated / V2

### 2nd digit =

#### Filler or reinforcement

- 0 non reinforced
- 1 mineral filled
- 2 glass fibre reinforced
- 3 and 4 digit defines the filler content

- RPP** ⇒ Homo // **RIPP** ⇒ Copo
- OSD** ⇒ Optimized smoke density
- SF** ⇒ Superflow (= very low viscosity)

- ND** ⇒ Non Dripping
- CS & MD** ⇒ Stabilised against copper
- S** ⇒ UV-Stabilised
- E** ⇒ Extrusion

### Example:

Polyflam RIPP 2000 S

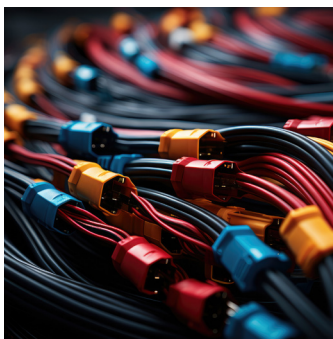
⇒ Copolymer V2  
unfilled UV-stabilised

Polyflam RIPP 2000 E

⇒ Copolymer V2  
unfilled for profile extrusion

Polyflam RPP 4225 CS1

⇒ Homopolymer halogen-free V0  
25 % glass fibre reinforced suitable for copper contact



# LyondellBasell

## Polyflam – Flame-retardant PP compounds

Properties	Units	Polyflam				Polyflam			
		RIPP 2000 S	RPP 374 ND CS1 5V	RIPP 374 ND CS1 5V	RPP 60335 CS1 5V	RPP 4115 MD	RPP 4220 MD 16V0	RPP 4225 CS1	RPP 4230 MD 16V0
		PP Copo, unfilled V2 halogen free	PP Homo, T20, V0, 5V	PP Copo, T20, V0, 5V	PP Homo, M35, V0	PP Homo, M15, V0, halogen free	PP Homo, GF20, V0	PP Homo, GF25, V0	PP Homo, GF30, V0
Density	g/cm	0.91	1.5	1.39	1.41	1.18	1.21	1.26	1.32
MVR 230 °C/2,16kg	cm³/10min	13	5	5	1.5	7	5	4	5
UL94 (V-)		V-2 @ 1.5 mm	V-0 @ 1.5 mm	V-0 @ 0.75 mm	V-0 @ 1.5 mm	V-0 @ 1.5 mm	V-0 @ 1.5 mm	V-0 @ 1.5 mm	V-0 @ 1.5 mm
UL94 (5V-)		-	5VA @ 1.8 mm	5VA @ 2.0 mm	5VB @ 2.0 mm	-	-	5VA @ 3.0 mm	-
GWIT	°C	800	750	750	800	775	800	850	775
RTI	°C	65	105	65	65	65	65	65	65
CTI	V	600	600	600	600	600	600	600	600

yellow card available

Glass fibre reinforced types	Suitable applications
RPP 4220 MD 16V0	Connectors/high voltage applications/electrical housings/battery packs
RPP 4225 CS1	Battery pack/battery housing
RPP 4230 MD 16V0	High voltage/electrical housings/battery packs
RPP 4230 MD HI 16V0	High voltage/electrical housings/battery packs
RPP 4230 MD SF 16V0	(SF=Superflow) Applications low viscosity is needed for above mentioned applications
Mineral filled types	Suitable applications
RPP 374 ND CS1	Tub dishwasher/electrical housings/high isolation properties
RPP 374 ND CS1 5V	E&E US-Market (Outdoor suitable)
RIPP 60335	Electrical housings/connector/high isolation properties
RIPP 374 ND CS1	Electrical housings/high isolation properties
RIPP 374 ND CS1 5V	E&E US-Market
RIPP 3625 CS1	Electrical housings/high isolation properties

Mineral filled types	Suitable applications
RIPP 3125 CS1	Electrical housings/high isolation properties
RPP 4115 MD	Housins, cooker hoods
Unfilled types	Suitable applications
RPP 2000	Building & construction business/airflow
RPP 2000 S	Housing dishwasher (Outdoor suitable)
RPP 2000 E	Profile extrusion applications
RIPP 2000	Building & construction business/cavity wall box/flush mounted box/lightning system
RIPP 2000 S	Outdoor application, UV-stabilised like: Stadium seats/applications in public areas/lightning system
RIPP 2000 E	Profile Extrusion applications
RPP 4000 MD	Battery housing automotive
RIPP 4000 MD	Battery housing/installation supports/cable channels
RIPP 4000 MD H	Long term heat stabilised ⇒ <b>Battery housings/</b> installation supports/ cable channels

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